

REMARKS/ARGUMENTS

Claims 11-16 stand in the present application, claim 11 having been amended. Applicants note with appreciation the Examiner's allowance of claims 12, 15 and 16, but respectfully submit that in view of the above-described claim amendments and the following remarks that all of claims 11-16 are now in condition for allowance. Accordingly, reconsideration and favorable action in this case is respectfully requested.

In the Office Action, the Examiner has rejected claim 11 under 35 U.S.C. § 102(b) as being anticipated by Yamada et al. In view of the above-described claim amendments to claim 11, the Examiner's § 102 rejection of the claim is believed to have been overcome, as will be described in greater detail below.

Applicants previously argued that Yamada failed to disclose providing an alignment layer which does not overlie the column spacer. In response, the Examiner pointed out that Yamada discloses alignment layer 5b which is only optionally formed overlying the column structure 7 (i.e., alignment layer 5b may also be formed on the top faces of the column structures – col. 11, lines 20-30; Yamada).

To better distinguish claim 11 over Yamada, Applicants have amended claim 11 to recite that no alignment layer is provided directly overlying or underlying the columnar spacer. It is respectfully submitted that such an amendment patentably distinguishes over Yamada wherein an alignment layer 5a is provided directly under the columnar structure 7. By manufacturing a liquid crystal display, as per amended method claim 11, the cell gap between the substrate can be more accurately formed. In having an alignment layer 5a formed under the columnar structure 7, it is clear that Yamada cannot achieve as stable a cell gap as can Applicants' claimed invention. Accordingly,

claim 11, as amended, is believed to more clearly patentably define over the cited reference.

The Examiner has also rejected claims 13 and 14 under 35 U.S.C. § 103(a) as being unpatentable over Tamai et al. in further view of Bahadur (Liquid Crystals 1990). Applicants respectfully traverse the rejection.

It was previously argued that Tamai et al. failed to disclose a method where only apertures in a black matrix are used as a mask for forming the columnar spacers. In the instant final Office Action, the Examiner again asserts that "it is believed that only the apertures in the light-shielding layer serve as a mask during formation of the column spacers since the column spacers are formed only in those areas." Applicants respectfully disagree with the Examiner's statement.

Tamai et al. explicitly discloses the use of a photomask 24 [see Col. 10, lines 47-52]. From the cited passage of Tamai et al. taken together with Fig. 1a, it should be understood that the photomask 24 is necessary to form the column spacers of Tamai et al. Furthermore, contrary to the Examiner's belief, column spacers are not formed "only in those areas" where apertures are formed in the light-shielding layer. For example, the area above electrode 22 (Fig. 1a), between two portions of light-shielding layer 23, has no column spacer formed thereon, and yet is not shielded by light-shielding layer 23. From Fig. 1a, it should readily be understood that no column spacers are formed in those areas because of photomask 24. That is, Tamai et al. does not provide columnar spacers in apertures of the light shielding layer 23 using only those apertures as a mask. Instead Tamai et al. requires photomask 24 to form columnar spacers in the correct position.

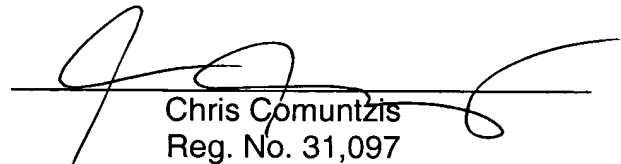
In Applicants' invention, as disclosed for example on page 14 of the present specification, using only the apertures of the black matrix layer as a mask allows for self-alignment of the columnar spacers, and further facilitates easier and more precise manufacturing. In other words, unlike Tamai et al., Applicants' invention does not require a photomask for alignment of columnar spaces. Accordingly, claim 13 and its dependent claim 14 are believed to patentably define over the cited references, taken either singly or in combination.

Therefore, in view of the above amendments and remarks, it is respectfully requested that this application be reconsidered and that all of claims 11-16, standing in the application, be allowed and that the case be passed to issue. If there are any other issues remaining which the Examiner believes could be resolved through either a supplemental response or an Examiner's amendment, the Examiner is respectfully requested to contact the undersigned at the local telephone exchange indicated below.

Respectfully submitted,

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